

# protected

Magazine of National Parks Association of Queensland

## Let's Talk Ecotourism: Perspectives on the use of our National Parks

**PLUS**

Wildlife after fire  
Magnetic Island

**ALSO FEATURED**

Large hadroid land snails of SEQ  
Ranger of the Month



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Summer 2019



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### Editor

Marika Strand.

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### Cover image

Hoop pines and spinifex, Magnetic Island.  
Photo: Eric Vanderduys.

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### Contact details

<b>Office Post</b>	Unit 9/36 Finchley St, Milton QLD PO Box 1040, Milton QLD 4064
<b>Phone</b>	(07) 3367 0878
<b>Web</b>	<a href="http://www.npaq.org.au">www.npaq.org.au</a>
<b>Email</b>	<a href="mailto:admin@npaq.org.au">admin@npaq.org.au</a>
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# FROM THE PRESIDENT



**Graeme Bartrim**  
President, National Parks Association of Queensland (NPAQ)

Welcome to a new edition of *Protected* and a new decade! I hope you all enjoyed family and Christmas celebrations whilst no doubt being concerned/alarmed by the ongoing drought, associated fires with loss of life, property and wildlife.

This edition contains articles on our recently held Ecotourism Seminar and the ensuing debate, on wildlife after fire, as well as a look at Magnetic Island and land snails.

The health of our environment and surety of water supply are concerning many of us, and there are plenty of predictions of a changed and harsher future. One small example is Professor David Bowman of the University of Tasmania suggesting that we may have to change the time of our major annual holiday so that it does not coincide with an apparently longer fire season.<sup>1</sup>

There are many reasons for negativity, however, there is much to celebrate and engender hope. The number of selfless hours that are put into our Association to achieve a more representative and resilient national park system in Queensland exemplifies this. This year is the 90th that the Association has been in continuous operation - great achievements and more to come.

The Bank of America Merrill Lynch recently predicted, amongst a number of trends, a significant shift with potentially enormous environmental benefit.<sup>2</sup> The bank sees "peak stuff" being achieved over the next ten years. As we wean ourselves off accumulating things and focussing on services and experiences there may be health benefits and less demand

on raw resources. This could coincide with an enhanced appreciation of nature.

Kenneth Hayne seems to have a habit of accurately defining the obstacles that we as a community, and as a consequence our politicians, have in actively meeting the long term challenges we face. Ensuring we maintain our biodiversity is such a challenge.

In a speech on the 19th of November 2019 to the Centre for Policy Development Business Roundtable on Climate and Sustainability he described how company directors are clearly responsible for determining tailored Greenhouse risk mitigations.<sup>3</sup> At a broader level he argues that the key impediments to change are "Learned Helplessness" (we can do nothing that can help) and "Short Termism" (doing something now will have adverse impacts on employment so doing nothing is an easier choice). Our part in continuing this thinking is worthy of much consideration.

The word "unprecedented" has been used regularly to describe the fire situation across the country. We sympathise deeply with those affected by the fires and praise the many men and women who are actively engaged in controlling them. Present species and park management plans have typically not been written with the extremes of the past couple of months in mind. We are concerned about the biodiversity consequences.

Over one third of Kangaroo island in South Australia has been burnt recently and there are predictions that the populations of the Glossy

Black Cockatoo and Kangaroo Island Smynthopsis may not survive. The Smynthopsis is endemic to the Island. The Island is the last South Australian habitat of the Cockatoo, however it occurs in other states including Queensland (where it is listed as Vulnerable under the Nature Conservative Act). It is possible that our State's responsibilities to protect biodiversity is becoming more urgent. There is already a strong case to progress to meeting the agreed target of 17% of the State being protected. We are running a campaign to clearly make this point. Further we believe this is a national issue and the Federal Government should not rely on the oft quoted helpless "It is a State matter".

### References

<sup>1</sup> <https://www.abc.net.au/news/2020-01-06/bushfire-season-holidays-converge-goodbye-typical-summer/11843312>

<sup>2</sup> <https://www.abc.net.au/news/2019-11-13/the-2020s-set-to-be-an-economic-turning-point/11699386> Australian National Outlook (2019) CSIRO, NAB

<sup>3</sup> <https://cpd.org.au/2019/12/full-text-of-kenneth-hayne-ac-qc-remarks-to-cpd-climate-roundtable/>



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# LET'S TALK ECOTOURISM

Julia Bartrim, Member, National Parks Association of Queensland (NPAQ)

In October last year, NPAQ organised a seminar in Brisbane to discuss an important issue: the pros and cons of ecotourism in national parks.

We caught up with two of the speakers after the event to get their perspectives in more detail (input from the other two speakers will be sought for the next edition).

**Tony O'Brien is the founder and owner of ecotourism business: Yuraygir Walking Experiences. He is also a former NPAQ president.**

Yuraygir National Park, on the NSW north coast, is part of the largest coastal wildlife corridor in the state. It has spectacular cliff top walks overlooking the Pacific and from May to November, you can watch whales passing by.

Tony started Yuraygir Walking Experiences (YWE) in 2015 because he wanted to help improve the conservation values of the national park. As part of this goal, YWE



**Above and below:** Images from the Yuraygir walk. Photos: Yuraygir Walking Experiences. **Banner:** NPAQ Ecotourism Seminar, October 2019. Photo: Kalam McTaggart.

recently purchased 300 acres of land adjacent to the park. It plans to restore the land and provide a quality buffer for the park. The funding for

this and future purchases came from Tony's business, Sentis, where the staff are highly motivated to contribute to this goal.

**Can you describe how Yuraygir Walking Experiences works?**

YWE uses small villages to billet campers; the park was created around the villages so it works well. There's just some very basic camps in the park itself...all they have is pit toilets. There's nothing else.

The walk itself is 65 km over four days with three river boat crossings required. Many people request their bags carried and dropped off at night so there's a big role for guides/coordination. The walking business doesn't make much money and it probably never will. It's really difficult to make money out of this type of business. The ideal owners would be a couple who treat it as a lifestyle

business.

**What do you think about the construction of eco-villages in more remote national parks; where existing external infrastructure doesn't exist or isn't practical?**

I don't see why you need infrastructure in national parks. If you want to come and camp in Yuraygir, well that's fine but it's pretty limited, I think that's the way it should be. My view is the best tourism ventures are those that are created by entrepreneurial situations, where people can access the park and walk in the park, but the infrastructure shouldn't be in the parks.

**In what ways does YWE benefit the national park's conservation values?**

By operating locally through the villages which abut Yuraygir National Park, we employ local people both directly and indirectly and jobs that come from the park generally lead to respect for the park. This is important in an area of both unemployment and underemployment. One of the most encouraging aspects in this area is the number of local landholders who are now contributing to protecting the...park by engaging in the Land for Wildlife movement within their properties.

**Adrian Caneris is managing director and principal wildlife specialist of a specialist ecological consulting company based in Queensland. He previously worked for the QLD Department of Environment in a role akin to a wildlife ranger.**

**What is your view on eco-tourism infrastructure in national parks?**

It's one of those areas where the devil is in the detail. The way it's done is the issue. The QLD government is currently looking at [what's needed on] some of the great walks, which are 3-5 days through wilderness areas. The aim is to use small pods (almost like plastic tents) that are fully removable. They'd be set up for ongoing use for a 1-5 year period. They are fully removable and easily picked up. The [tourism] operator would bring in mobile catering.

**Do you see ecotourism ventures as likely to benefit the ecological values of the national parks in which they operate?**

Governments as a whole won't

continue funding national parks if they don't see a benefit to it. Our national parks are worth billions of dollars to us in terms of mental health, recreational health and biodiversity. Having them produce a monetary turnover helps [the government] to see that. At the moment though there's [often] not a lot [of benefit] in it for the national park itself. People are taking 4x4 tours along beach foreshores and going through national parks to do it and there's no return. QLD is a long way behind other states in terms of user pays tourism. The money raised [if the government implemented a fee to access national parks] should ultimately go back to the park.

I'm generally comfortable with ecotourism, when it's done properly.

## Key points from the Queensland Government's Ecotourism Plan 2016-2020, published in 2016

- The Ecotourism Plan 2016-2020 touts a "fresh approach" to ecotourism
- The government and tourism bodies have been investing "significant effort" into "repositioning Queensland as...a world leader in ecotourism"
- The plan identifies one of the key challenges as: work(ing) with the tourism industry to investigate and **identify viable ecotourism projects on tenure other than the protected area estate**
  - The plan also states "**there are opportunities available for privately owned ecotourism experiences on and off protected areas**...[when considering investment] preference will be given to previously disturbed areas (brown field sites) rather than intact areas (green field sites)."
  - Research indicates that **Queensland's national parks receive 51 million domestic traveller visits and 7.9 million visits from international travellers per year**
  - The Queensland Government estimates that direct spending by visitors of over **\$749 million per annum can be attributed exclusively to the existence of national parks**
  - The World Tourism Organisation defines ecotourism in part as: "...generally, but not exclusively **organised by small tour operators for small groups**. Service provider partners at the destinations tend to be small, locally owned businesses"



# WILDLIFE AFTER SEVERE FIRE IN SPRINGTIME IN MOUNTAIN FORESTS OF SEQ: A FEW NOTES

Ronda Green, PhD  
Chair of Scenic Rim branch of Wildlife Queensland, chair of Wildlife Tourism Australia,  
and Adjunct Research Fellow at Environment Futures Research Institute, Griffith University

The advice provided in this article is for private land only, and perhaps Council land with permission. National Parks have a strictly hands-off policy, so nothing should be provided there.

Fire is a natural phenomenon in many Australian ecosystems. Many of our open forest and heathland plants have adaptations to deal with it, and many of our animals can readily escape a slow moving fire, their populations bouncing back shortly thereafter.

However, very severe fires can have very severe consequences. There are then two problems for our wildlife:

- the welfare of individual animals that are wounded, orphaned or that have survived the fire but now cannot find enough food and are more vulnerable to predators because of the lack of shelter
- conservation of populations: if the fire is sufficiently fierce and widespread, especially in areas of fragmented habitat, it has the potential to eliminate local populations of the species either by mortality during the fire or by destroying the resources they need

Death is normal in natural ecosystems, as in human societies, and we can't change that. Most animals never live to adulthood – they are caught by predators, succumb to parasites or diseases, or starve. Old animals become more susceptible to all of these problems (old koalas often end up starving because their teeth have been worn down too much to chew eucalypt leaves). Everything and everyone dies eventually. Sad perhaps, but again nothing we can do about it and we could cause more problems by trying. In normal circumstances we shouldn't alter anything in natural habitats.

I would thus not normally suggest feeding wildlife, especially in natural or near-natural areas: it can cause all

kinds of problems. However, natural disasters, sometimes accentuated by human activities (including climate change) can put unusually high pressures on our wildlife for short periods.

Here are some of the animals that could especially need a helping hand during or after a severe event such as our recent fires, followed by some we should avoid helping.

## Antechinus

Antechinuses are small carnivorous/

insectivorous marsupials – small cousins of quolls and Tasmanian devils. The one pictured here is a yellow-footed antechinus of the open forests, but the rainforests harbour other, related species. They may look like mice but they have sharp carnivore-style teeth and eat mice, along with small lizards and insects, worms etc.

**Mobility.** With their short legs they can't run very far very quickly, but if the fire is not too hot they can hide under logs etc. as it approaches. After

a fire that eliminates much of their insect prey, they can't range wide areas to seek food. They mate in late winter and early spring, and soon all males die off, with females living on to raise the family. By mid-spring each female is either burdened with several babies firmly attached to her teats, making it even harder to travel far, or she has the relief of finally being able to leave them in a nest while she forages, but again can't go far because she has to return to feed them.

**Problems after fire.** Lack of mobility, lack of invertebrate prey amongst leaf litter, lack of cover of low vegetation and thus vulnerability to predators.

**How to help.** Dry dogfood or dried mealworms scattered thinly amongst leaf litter. A TINY amount of peanut butter, sausage, bacon, sardine or linseed oil could help attract their attention by smell: do NOT attract their predators (dingos, dogs, foxes, cats) by supplying any large or conspicuous pieces (placed under

a log is best). Water should also be provided, to counteract the dryness of the food offered. If shelter is severely compromised, local logs could also be provided.

## Lizards

Skinks are the most numerous lizards in Australia, both in individuals and number of species. They typically have small, weak legs. Most are quite small (10cm or so). Even the largest skink in Australia, the land mullet, can't travel long distances to find food after a devastating fire, and nor can its slightly smaller cousins in the rainforests and adjoining eucalypt forests, the major skink and the pink-eared skink. Geckos mostly live in the trees and can go higher to escape fires that just burn quietly through the lower layers, but are in trouble in canopy fires, and have the same problems as other small lizards afterwards. Dragon lizards can travel a bit further, but by doing so may intrude on the territories of other dragons. Goannas are the largest lizards, but

with their lumbering, prehistoric gait also have their limits on how far they can travel to find more food.

**Problems and how to help:** as for Antechinus

## Small insectivorous birds

Small birds such as scrubwrens and log-runners may also find it difficult to find food after a severe fire. They are more mobile than the antechinus and lizards, but their mobility is limited and they may not be able to simply move into neighbouring forest, because once again they may be occupied by other members of their species guarding their territories, especially in spring when everything is breeding.

Other birds are returning from the valleys in spring ready for breeding in mountain forests and also trying to find resources that may simply not be available in sufficient quantities to feed a family of hungry nestlings.

**Problems and how to help:** as for those above.

## Pademelons, potoroos and bandicoots

Kangaroos and wallabies can move long distances in search of food (challenged in some localities), the smaller macropods and potorids less so. Red-necked pademelons often rely on leaving the rainforest to forage, especially at dusk and dawn, on grasses, and red-legged pademelons will do the same but less often, mostly staying in the forest eating other leaves.

**How to help.** If the grass beside a forest has been affected by fire, or if many understorey plants have been affected, they can be given a temporary boost (until plant life recovers) by thinly scattering pony



Above: Antechinus; Photo: Ronda Green. Banner: Bushfire; Photo: Queensland Government.



Above: Land mullet; Photo: Ronda Green.



# WILDLIFE AFTER FIRE, CONTINUED

pellets (or better still macropod pellets) amongst the leaf litter. This, combined with small dried dogfood or dried mealworms, will also assist bandicoots and potoroos, which are omnivorous.

## Hollow-nesters

Possums, including gliders, parrots, native bees and other species may lose trees with hollows. A few artificial nest-boxes may help these through the tough times, especially in breeding season. Small animals such as sugar gliders and feather tail gliders will find it hard to compete with larger species, and tree-climbing predators such as goannas and carpet pythons can also enter, so it is important to include a few boxes with small openings (e.g. 3.4cm diameter) and if possible face the opening towards the tree trunk, with of course something to hold the box slightly away from the trunk so

these tiny creatures can climb in but their larger competitors and predators will be more challenged by.

## What NOT to help

Number one is the currawong. They are large birds, powerful flyers, omnivorous and very adaptable, so although individuals may well be hungry they'll mostly do just fine.

The animals they prey on won't. Same goes for kookaburras and crows.

Small lizards that have to expose themselves on the forest floor when foraging for food are easy prey for feathered predators, which often do very well just after a fire because of the small vertebrates and large invertebrates that have survived but lack shelter.

Probably the greatest problem though is the raiding of nests. The

small birds may be finding it very tough anyway to raise their broods following fire and/or drought, and it may well be impossible for them to do so if they are also faced with these predatory birds that are constantly on the lookout for eggs and nestlings to eat. In the New England district of NSW, the currawongs used to go to the lowlands for winter, until residents started growing winter-fruiting plants such as hawthorns and cotoneasters, which encouraged them to stay year-round. Some local patches of bushland have, as a result, lost 100% of all nestlings in some years.

This is why I'm recommending a light scattering of food amongst leaf litter or under logs or dense plants. A large pile of food, or even the scattering of small pieces of food on open ground will be readily seen by currawongs, crows, butcherbirds, kookaburras and others it would be better NOT to encourage, if we are to help the antechinus, small lizards and small birds mentioned above.

There are also large birds and mammals such as brush turkeys and brush tailed possums that are very adaptable and can probably take care of themselves much better than those discussed above (and brush tailed possums do also raid bird nests). While it is not so bad to feed these as feeding currawongs, they are not the priority.

## Experiments

I wanted to be careful to assist the creatures most in need without making things worse for them by feeding too many of their more mobile competitors and worse still their major predators. With assistance of a couple of local folk (especially

Barry Davies and Alinta Krauth) we set up motion sensing cameras to see if scattering as suggested above could work. When conspicuous food was presented it was soon eaten by currawongs and crows, precisely what we don't want to happen. When spread thinly and inconspicuously in leaf litter (some of it close to burned areas) it was soon found by bandicoots, pademelons, bowerbirds, whipbirds, goannas and others, but not currawongs, crows or dingos.

No antechinus – maybe they have already all died from drought or fire-induced lack of insect life at a hard time for the new mothers, or maybe they just don't find the dog pellets and mealworms as readily as other more wide-ranging foragers. This is why I'm suggesting a tiny bit of peanut butter under logs or dense ground-hugging plants. If this fails to attract their attention, other lures used for trapping them during field surveys have included such things as

sausage, salami, bacon, sardines or leather soaked in linseed oil. If using any of those though, it has to be a TINY amount or it could also attract dingos, dogs, cats and foxes. We're not trying to actually feed them with those foods, just attract their attention to the food we are providing for them.

## Burnt areas

I haven't yet experimented with providing food amongst the ashes of the badly burned areas. They seemed just so bare initially that there's probably not much surviving there now or trying to use them, and any food scattered there may be too readily seen by currawongs, crows, etc.

I would suggest some experimental scattering under logs or under any greenery that starts to appear after the first rains, especially where local species are known to have occurred previously, and gradually extending further into the burned areas as they start to recover.



## How long and where to help?

We've been in a very long drought and now the fires have made things harder for the animals. The forecast is predicting more drought and more high temperatures. Although we do not wish to make these animals dependent on handouts, I would suggest continuing some amount of supplementary feeding and provision of water (in shallow bowls with rocks or branches that small skinks can climb out on so they don't drown) until the worst of the summer droughts are over, perhaps till the end of February depending on what the weather is doing, gradually trailing off until conditions improve. If we are surprised by a couple of weeks of good rainfall, and quick recovery of plants and insects, that may not be necessary.

**The advice is for private land only, and perhaps Council land with permission. National Parks have a strictly hands-off policy, so nothing should be provided there.**



Above: Male logrunner. Photo: Ronda Green. Banner: Bushfire. Photo: Michael Held.



Above: Red-legged pademelon. Top: Burned eucalypt forest near Binna Burra. Photos: Ronda Green.



# PARK IN FOCUS

## Magnetic Island National Park

April E. Reside & Eric P. Vanderduys  
Centre for Biodiversity and Conservation Science, The University of Queensland

With 90% of its roughly 50km<sup>2</sup> covered in native vegetation, Magnetic Island holds great nature viewing opportunities. "Maggie", as it is known, is a tropical, continental island separated from the mainland by 4.5km of shallow sea. The island's fauna and flora is driven by its highly seasonal wet-dry climate and the underlying geology. The geology is dominated by granite boulder piles, with Mt Cook being the highest point at 497m. Magnetic Island has been separated from the mainland for about 8000 years. It receives much less rain than areas of the Wet Tropics to the north due to the angle of the mainland coast and predominant southeast trade winds. Around 80% of the island is protected as National Park, with few incursions such as roads or walking tracks.

### Interesting geological and social history of the area

Magnetic Island has a long history of occupation and use by the Wulgurukaba people. Wulgurukaba means "canoe people", who have a history of travelling between the mainland and Magnetic and other islands. The island contains faded rock paintings, some scattered stone tools and greasy blackened undersides of rock overhangs, probably from cooking fires, and shell

middens scattered around the island.

Early post-colonisation history included a quarantine station for people suffering from leprosy; also tourism, horticulture and cattle grazing. The poor soil made horticulture difficult, and cattle grazing has long been abandoned. The extreme densities of common brushtail possums and allied rock-wallabies would also have been significant deterrents to viable production of crops, as they are to garden plants today. Common brushtail possums are at higher densities in Magnetic Island than anywhere else in Australia (McGregor et al. 2013). Tourism remains a major industry on the island.

### Plants and Animals of Magnetic Island

The massive piles of granite boulders on the island combine with tall emergent hoop pines (*Araucaria cunninghamii*) to provide some spectacular scenery. In many situations there is an interesting combination of spinifex grass (*Triodia stenostachya*) and hoop pines – a combination of plants found in very few locations. Hoop pines are fire sensitive, and spinifex burns intensely because of the resins in the leaves and stems, so it seems like a fraught relationship.

Where fire can reach, there are few

or no hoop pines and, depending on the underlying geology, the vegetation is usually dominated by eucalyptus, melaleuca or acacia woodlands or scrub. The rock boulders, small creeks and narrow gorges play an important protective role against fire, and many fire sensitive species can be found growing behind a large boulder or beside a creek, resulting in lowland semievergreen vine thickets. For example, the python tree (*Gossia bidwillii*) is fire sensitive, but "large" (30cm diameter), old (100s of years), gnarled trees can be found in these areas. The vine thicket communities can in turn shelter bird species that are often associated with rainforest, such as noisy pittas, russet-tailed thrush and emerald doves. It is likely that individuals of these species may be just passing by – the first known russet-tailed thrush to turn up on the island was notable by its like-clockwork daily 4:30am call, for a few weeks, before disappearing.

A small area of dry basalt based forest on the western end of the island has vine thicket communities characterized by native bauhinia (*Lysiphyllum hookeri*) and emergent currajong (*Brachychiton* spp.), species found nowhere else on the island.

Notably, Magnetic Island has one endemic vertebrate, the Magnetic

Island skink (*Pygmaeascincus sadlieri*). This species was only known from one specimen for over 20 years (Vanderduys 2005) despite it being very common in some locations, once you know how to find it.

Magnetic Island has one of the northern-most population of koalas (*Phascolarctos cinereus*). Koalas were introduced sometime around 1920 when it was thought they may go extinct in other areas. A recent census estimated there were 800 koalas on the island, and are regular visitors to urban backyards.

While there are no high-speed, venomous elapid snakes, possibly because there are few small native mammals except bats, and no dragons or goannas, small rainbow skinks (*Carlia rubigo*) are extremely common, as are saxicoline sunskinks (*Lampropholis mirabilis*) in rocky gullies. The latter are fascinating to watch as they are very curious, and, if you sit still, will eventually wander over and sniff your clothes or skin.

Magnetic Island is well known as a location for death adders (*Acanthophis antarcticus*). This species is most common in, or adjacent to, rocky areas, where its prey (almost entirely skinks) is common. The death adders are extremely docile, and disinclined to bite. Bites to humans are rare.

### Birds of Magnetic Island

As with other fauna groups, bird communities on the island are notable for absences and of extreme abundance. Pied currawongs are common, and resident year round. There may be very little movement of currawongs between the island and mainland, because the currawongs have a dialect that is not known from elsewhere: many of their calls seem

identical to other currawong calls, but their familiar duet, performed mostly around dusk is unique to Magnetic Island. For any other bird species to establish on the island it must be able to cope with these highly intelligent, year-round nest raiders. Currawongs have learnt to look under eaves for hanging pieces of string or wire, where olive-backed sunbirds often make their nests.

One of the few forces that might be moderating the currawong dynasty is nest parasitism. The channel-billed cuckoo visits the island each spring to look for a gullible foster parent for their offspring. By parasitising the nests of currawongs, currawongs are less able to raise young of their own.

Sulphur-crested cockatoos are another species which appear to have a unique dialect with a course, descending five note screech only heard on Magnetic Island. The year round presence of both sulphur-crested cockatoos and pied currawongs, and their subtly unique dialects suggests they may have been partially or totally isolated from mainland populations for a very long time.

There are other species that are extremely common. Bush stone-curlews are so abundant that we prefer to call them Magnetic Island garden gnomes. The cry of curlews dominates the natural night time soundscape. The high density of curlews supports the local barking owl population, and much drama ensues when curlews young are beginning to be mobile adolescents. The parent curlews stand guard over their prone young, white-spotted wings outstretched.

Magnetic Island is a great place to

find white-bellied sea-eagles, with at least 5 nests on the island. At Radical Bay on the northeast corner of the island, there is a white-bellied sea-eagles eagle to the east, and a time-share eastern osprey/nankeen kestrel/whistling kite nest to the west.

Watching the ospreys hunt is always interesting -- but it's heartbreaking to watch multiple catches being stolen by the white-bellied sea-eagles, which, with their much lower wing loading, are often successful in stealing fish with little more than a few initial wing beats, and a final dramatic dodging chase as it hones in on the fish-laden osprey.

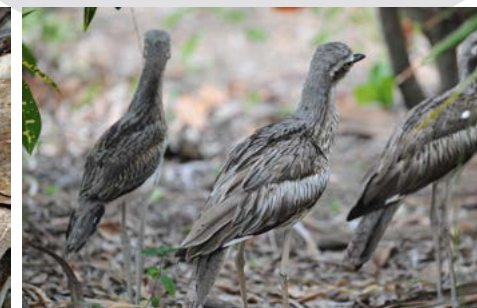
The mudflats and sand beaches on the western edge of the island are also good places to see migratory waders, with at least a few eastern curlews, bar-tailed godwits, whimbrels, and grey-tailed tattlers being present year round, and a resident pair beach-stone curlews on one beach behind the mangroves.

The semi-evergreen vine thickets in rocky gullies are the best places to see those forest birds than can survive the currawongs – rose-crowned fruit-doves, spectacled monarchs, grey and rufous fantails, varied trillers and emerald doves.

Finally, during winter the ferry trip is occasionally diverted by humpback whales, often a mother and calf. Not a bad excuse for being late to work.

### References

- McGregor, D. C., S. E. Kerr, and A. K. Krockenberger. 2013. The distribution and abundance of an island population of Koalas (*Phascolarctos cinereus*) in the far north of their geographic range. *PLoS ONE* 8:e59713.
- Vanderduys, E. P. 2005. Additional information on *Menetia sadlieri*, a poorly known skink from Magnetic Island, North Queensland *Herpetofauna* 35:54-60.



Above: (L to R): Magnetic Island skink; *Carlia rubigo* male; bush stone curlews. Banner: Hoop pines and spinifex. Photos: Eric Vanderduys.



# WILDLIFE FEATURE

## Large hadroid land snails of south-eastern Queensland protected areas

Dr John Stanisic  
Honorary Research Fellow, Queensland Museum; Research Associate, Australian Museum

Queensland has a sizeable number of large to very large land snails typically referred to as the hadroid snails, belonging to the family Camaenidae. A number of lineages are involved and this article features one such genus of Dark and Banded Snails from south-eastern Queensland whose species chiefly inhabit rainforest and dry vine thickets along the coastal plain and ranges and off-shore islands. All of these species have ranges that incorporate protected areas of one sort or another and because of their shell size are usually the subject of enquiry by parks staff managing these areas.

The genus of interest is the part of the red mantle lineage (*Figuladra*) as distinct from the black mantle lineage (*Sphaerospira*). The mantle is the tissue that is visible when the animal retracts into the shell. The mantle colour also extends to the foot and body of the snail to varying degrees with species of *Figuladra* having pinkish-grey animals. *Figuladra* comprises species distributed throughout the South East Queensland (SEQ) and Brigalow Belt South (BBS) bioregions. *Figuladra* also extends to the Central Mackay Coast (CMC) bioregion but the species are



**Above centre:** *Figuladra appendiculata*, showing red mantle tissue. **Above:** *Figuladra bayensis*. **Banner:** *Figuladra aureedensis*. **Top right:** *Figuladra mattea*. Photos: John Stanisic.

not featured in this article.

*Figuladra* species are readily distinguished by their pink to red mantles and pinkish-grey animals. Their distributions are often more complex than those of their dark lineage counterparts but again chiefly showing a preference for dry araucarian rainforest and vine thicket and in one instance open woodland.

Occurring from from Mudlo National Park to State Forests around Maryborough is the Biggenden Banded Snail (*Figuladra bayensis*) whose shell becomes very large in the limestone habitat of Mt Biggenden. North of this species and centred around the Many Peaks and Dawes Ranges is the Goodnight Scrub Banded Snail (*Figuladra reducta*). To its north and centred around the My Morgan Range is the Mt Morgan Banded Snail (*Figuladra narellae*). Out toward the coast in the Port Curtis/ Gladstone area the Port Curtis Dark Snail (*Figuladra lessoni* = *curtisiana*) is found. This species has a brown shell with incipient banding. The Berserker Range Banded Snail (*Figuladra appendiculata*) is restricted to the Berserker Range, with Mt Archer being a key and accessible locality. North of Rockhampton, in Mt Etna Caves National Park and the greater Yeppoon area, lives the Yeppoon Varicoloured Snail (*Figuladra aureedensis*). This species is present in extremely large numbers in the limestones here where it has two shell colour morphs: a brown shell with a yellow patch on the base and yellow shell with numerous narrow brown bands.

While the above completes the inventory of described *Figuladra* species in SEQ, there are a number of yet to be described species also in the mix. These are currently undergoing



study as part of a comprehensive revision of *Figuladra*.

The woodland species is the Pale Banded Snail (*Figuladra mattea*) which is very common and widespread in the SEQ and BBS bioregions. Occurring from the Border Ranges to the Fitzroy River in the north and west to the Dawson River, this species lives in open woodland where there is no competition from any other hadroid species. Only on one occasion (at Mt Ox, via Theodore) has it been found monopolising vine thicket.

Land snails are a significant component of the terrestrial invertebrate fauna and play an important role in the decomposition process along with a host of other organisms. Their food is primarily decaying vegetation, fungus and other biofilm. The species outlined above are iconic but form only a very small part of Queensland's estimated 900 or so species of land snails. Their presence is indicative of a healthy environment and potential biodiversity hotspots.

However, their greatest threat is habitat loss either through land clearing or fire. A fire that burnt scrub, including vine thicket, in the Mt Etna Caves National Park about two years ago, killed thousands of Yeppoon Varicoloured Snails.

# THE NATIONAL PARK EXPERIENCE

## Personal reflection on why our parks must be valued

Kalam McTaggart  
Member, National Parks Association of Queensland (NPAQ)

I personally value the natural environment, and for me, national parks are a way to both protect nature and experience it. One of my favourite parks is D'Aguilar: it's close to home with plenty of engaging walks and camping opportunities. D'Aguilar's relative proximity to Brisbane city serves to frame the remainder of my remarks, as I wish to discuss the affective benefits of the natural environment generally, particularly from the standpoint of one who resides primarily in a built environment.

In the natural environment there is a somewhat paradoxical coupling of both immediacy and patience. The built environment, where I spend the majority of my time, is always forward thinking and is always exacting. The built environment is forever demanding, and relentlessly impatient. Indeed I find that the quicker something happens the less patient I am with it. Driving 10 km under the speed limit in traffic, waiting an unforeseen 20 seconds for a familiar webpage to load, and countless other inconsequential moments which seem to invariably cause jaws to clench and nerves to fray.

Conversely, nature is totally patient and startlingly present. I have observed that while I, as a



**Above:** The author enjoying a national park with friends. Photos: Kalam McTaggart.

human, must consciously (and conscientiously) choose patience and to work for the mental shift required for immediacy of thought; such is not the case for the natural environment. The very fibre of being of the natural environment exists at its own pace and in its own sphere. Nature does not rush, for it does not consider time as a bounding force. Trees will grow because they exist to grow, water will babble through the stream at the pleasure of the rain, and predators will hunt because their life is the hunt.

Thus, to me, nature resonates with the grace of acceptance. Even in trying times, such as drought and fire, the natural environment seems to accept the struggle of the moment as its present reality, and effortlessly continues forward dauntless in its purpose. The natural environment's calm acceptance is balm to my beleaguered spirit. Oftentimes, it is only once I have made the effort to be amongst nature that I can fully comprehend both how worn down I was, and the startling contrast of the built and natural environments.

For me, the experience of immersion in the natural environment is multi-faceted and holistic. However, consideration of one such facet in isolation may be illustrative of my personal experiences in nature. In Queensland it is difficult (though not impossible) to immerse yourself in the natural environment without being amongst trees. There is a majesty to trees that I would argue all people feel, though we all can struggle to articulate. A majesty which is more than trees imposing heights and endearing colours; a tree is alive. A tree towering before an observer represents years of patience, and

years of acceptance. A tree plants its roots, a lucky seed which has found fertile ground and will likely never have the luxury of knowing any other location. With otherworldly calm and industry, the tree will set out to magnify its existence, its life consigned to a plane of constant growth and survival, which is at once frighteningly foreign and intimately familiar to human consideration. Through predators, weeds, fires, floods and droughts, a tree simply does its best to continue to survive. Eventually I may even find myself standing before such a tree, considering its life in an ironically short period of time as I continue in my bushwalk; nevertheless, I am a grateful recipient of a measure of its calm life.

There are so many incredibly valid, persuasive and logical arguments for the importance of national parks. However, for me, there is also affective, emotive and non-rational arguments which are equally as valid. In the continual push for advocacy of the natural environment, I would add my conviction for the immeasurable, and sometimes unquantifiable, value of national parks, and for those who are like me, and can easily forget how personal said value can be, I would commend a visit with nature.





# RANGER OF THE MONTH

## Insights into the diverse backgrounds and day-to-day activities of Queensland's park rangers

Omar Bakhach  
Queensland Parks & Wildlife Service (QPWS)

Omar Bakhach is a Senior Ranger in the South East Queensland Region, based on the Sunshine Coast. While volunteering for cassowary conservation in Mission Beach in the late 1980s, and showing his father-in-law around the rainforest, an 'off the cuff' comment — "You'd make a good ranger!" — set him on the path to becoming a Park Ranger. Omar was accepted as a mature age student into University of Queensland, Gatton Campus, then won a position with Queensland Parks Wildlife Service (QPWS) in Toowoomba...the rest is history.

### How long have you worked in national parks?

Since the early 1990s.

### Which parks have you worked in?

I initially had some short stints working around the Lake Eacham and Mission Beach area in Far North Queensland. In the mid-90s, I worked in Marine Parks out of Cairns on the Great Barrier Reef Marine Park and island national parks between Dunk Island and the top of Cape York Peninsula. After that, I spent a couple of years as Ranger in Charge at Central Station on K'gari (Fraser Island), Great Sandy National Park, World Heritage Area. One day I was invited to relieve in the Ranger in Charge Noosa National Park, a position eventually became permanent. I am now Senior Ranger for the Sunshine Coast coastal area, based in Maroochydore. Key parks in this area include Noosa, Mt Coolum and Tewantin National Parks, Eumundi Conservation Park, and Tuckekoi National Park (home of the Pomona King of the Mountain foot race).



Above: QPWS Ranger Omar Bakhach. Top: Visitors at the day-use area, Noosa National Park. Photos: Queensland Government.

### What is your most memorable moment?

One highlight was the far northern boat patrols on the Great Barrier Reef Marine Park in the mid-1990s! On these trips between Cairns and the Torres Strait, our tasks were very diverse and we had the privilege of experiencing the sheer beauty of some of the most remote parts of the Great Barrier Reef islands, coral cays and reefs, and Cape York Peninsula. We did flora and fauna surveys of islands and reefs, scuba diving and snorkeling almost pristine coral reefs, tagging marine turtles and surveying for crown-of-thorns starfish, along with compliance work, moorings maintenance and infrastructure maintenance on remote islands. Much of our work was in conjunction with local Traditional Owners such as Djabugay and Kuku Yalanji around Cairns and Mossman, as well as communities of Cape York. It really was a special part of my working life that I look back on very fondly.

### Can you describe your favourite national parks experience?

A boat trip through the Noosa Everglades and to the Upper Noosa River in the Southern Cooloolo section of Great Sandy National Park has to be right up there. Just knowing how close it is to South East Queensland (and civilization), while experiencing its beauty and remoteness when you are paddling into the upper reaches is very special.

### What is the best part about working in a National Park?

The best thing about working as a Park Ranger is feeling like you are a real part of the community, and managing a community asset that hopefully will be around in as good (or better) condition in years to come, for future generations.

### What is your top tip for visitors to parks for bushwalking?

Be prepared! Do a little reading up about where you're going. Carry a small backpack with water, snacks and a basic first aid kit. Most of all switch off from your 'daily grind'. Take time to stop, breathe and 'feel' the environment around you... Don't race through your trip!!

### What is your top tip for campers?

If you come to a relatively empty camping area, don't set up your camp right next to the only other camp there! Also clean up around your site (and beyond) thoroughly when you pack up. Respect other campers!

*NPAQ thanks Omar for taking time to answer our questions. We appreciate the work all QPWS rangers undertake in protecting Queensland's national parks.*

## WHAT'S 25N

For more information on activities & events, visit our website:  
[www.npaq.org.au/events](http://www.npaq.org.au/events)

## NPAQ activities

### Social Walk on Morelia and Atrax Tracks, D'Aguilar National Park

Date: Wednesday 12 February 2020

Meet: 10:00am at Manarina Section (D'Aguilar National Park), Mount Nebo Road

Cost: \$5

Leader: Len and Laurelle Lowry (0428 335 572 or onthewallaby@live.com.au)

### Toolona Creek Circuit

Date: Saturday 22 February 2020

Meet: 8:00 am at O'Reilly's carpark

Cost: \$5

Leader: Frank Freeman (07 3824 3954 or frank\_fr@bigpond.net.au)

### Birdwatching – Nudgee Waterhole and Nudgee Beach

Date: Sunday 23 February 2020

Meet: 7:30 am at corner of Nudgee Rd and Childs Rd

Cost: \$5

Leader: Ian Peacock (07 3359 0318 or ianpeacock@hotmail.com)

### Bird Watching – Wolston Creek Bushland Reserve

Date: Sunday 22 March 2020

Meet: 7:30 am at the end of Sumners Road

Cost: \$5

Leader: Geraldine Buchanan (07 3349 1109 or geraldine\_buchanan@hotmail.com)

## NPAQ events

### SAVE THE DATE: NPAQ's 90th Birthday Celebrations

Date: Thursday 23 April 2020

Details to be announced soon.

### NPAQ February Member's Meeting

Steve Noakes will update us on the future of Binna Burra Lodge

Date: Wednesday 19 February 2020

Time: 6:15pm for 6:30pm start

Venue: To be confirmed

### NPAQ May Member's Meeting

Date: Wednesday 20 May 2020

Time: 7:15pm for 7:30pm start

Venue: To be confirmed

## Vale

NPAQ was saddened to hear of the passing of life member James Croker who joined NPAQ in 1981. We were also saddened by the passing of member Nina Wood, who joined the organisation in 2003. We send our sincere condolences to their friends and families.



Photo: Nelson Tavares.

## NPAQ Easter Camp 2020

Date: Starts Thursday 9 April 2020

Location: Cambrook Caravan Park, 2951 Maleny-Kenilworth Rd, Cambrook, QLD 4552

The Easter Camp for 2020 will be held in the Kenilworth Maleny area. For those who enjoy longer and challenging walks, the area provides a wide range of activities in Conondale National Park and Imbil State Forest near the campsite or Kondillilla and Mapleton National Parks a little further afield.

For those who prefer more relaxed and social activities, the towns in the area provide lots of opportunities to shop, enjoy a coffee or a meal as well as botanical gardens, picnic areas and scenic drives.

Cambrook Caravan Park has all amenities (toilets, hot showers, free laundry, fire places) including 2 self-contained cabins. It has a mini "zoo" and the daily feeding is included. The Jurassic Trail is an onsite walk through the native bush from the caravan park. A courtesy bus is available from the Kenilworth Hotel for our traditional dinner night. (Pay when ordering.)

Activities Program: A program of activities will be planned and distributed to nominees prior to the camp.

Campers: Our camp has been allocated an area from Thursday to Tuesday. Powered sites are available nearby if required. Please pay for your site when you nominate for the camp via NPAQ Website.

Powered site: \$18 per person /night.

Unpowered Site: \$15 per person /night

Children (3-6 years old): \$5 per child/night

Cabins: Please make your cabin booking directly with the caravan park.

The Jungle House (Sleeps 4) \$180 per night

The Bunkhouse (sleeps 7) \$150 per night

Additional Costs: Please include an additional \$2.50 per day per adult attending for a maximum of 4 days for NPAQ outing fee and other associated costs.

Nominations: Please nominate via NPAQ's website by Tuesday, 31 March.

For further information please contact:

Frank Freeman: 0427 655 514 or frank\_fr@bigpond.net.au

Mary Anne Ryan: 0436 393 999

Ian Peacock: 07 3359 0318



*Save the date...*

**NPAQ'S 90<sup>TH</sup>  
BIRTHDAY  
CELEBRATION!**

**THURSDAY  
23 APRIL 2020**

**The first conservation  
organisation in Queensland  
is turning 90!  
Help us celebrate!**

**Details to follow...**